

Animals, as well as humans, get stranded on the Kenai Peninsula

by Ted Bailey

The recent avalanches that stopped people from traveling to and from the Kenai Peninsula are a reminder how isolated the Kenai Peninsula is from mainland Alaska. Travel by air was still possible, but people using ground transportation were stopped in their tracks. A similar situation applies to certain species of wildlife trying to leave, or to find, the peninsula. Because birds travel by air, they have little difficulty finding and leaving the peninsula, but mammals have more difficulty, because they travel on the ground. Picture wildlife somewhere on the Kenai Peninsula with no knowledge of geography, no “road” system, and an urge to travel. How long would it take them to find their way off the peninsula? Or picture wildlife under the same conditions somewhere north of Anchorage with an urge to travel. What are their chances of finding the Kenai Peninsula? Translocated animals often attempt and some succeed in returning to their “home areas.” But long-term radio-collar monitoring of native wolves, bears, and lynx on the peninsula show how difficult it is for certain species to leave—and probably more difficult to find—the peninsula. Consider the lynx for example.

Most resident lynx spend most of their lives in a well defined area whose size varies according to their sex, age, reproductive status, and their cyclic food supply—the snowshoe hare. However, some lynx, often young males, eventually leave their natal or birth areas and search out distant areas to settle in. These non-resident lynx are known as “dispersers.” Dispersing lynx are capable of traveling great distances in a continuous habitat. Three lynx initially tagged in the Yukon Territory were later trapped in eastern Alaska and others were trapped in the Northwest Territories (now Nunavut), British Columbia, and Alberta. One Yukon-tagged lynx was trapped a record distance of 687 miles from its capture location. These Yukon-tagged dispersing lynx traveled through continuous habitat.

In contrast, the Kenai Peninsula is almost disconnected from mainland Alaska. Lynx traveling between the Kenai Peninsula and the rest of Alaska must fol-

low narrow, forested corridors in steep mountain valleys. They must cross open alpine habitats or a wide zone of nearly treeless wetlands at the head of Turnagain Arm, and traverse through human-populated areas surrounding Anchorage. Lynx prefer to travel in dense or forested cover, and unlike wolves that will cross open areas, lynx are reluctant to cross wide, open treeless areas. Consider the following specific, but typical, example of the movements of one dispersing lynx.

We did not know where young male lynx #113 was born or where he spent his first year of life. It will forever remain a mystery. But we do know where he went, and where and when he died. We captured him one dark, snowy afternoon in late October 1996 south of Chick Lake in the northern portion of the Kenai National Wildlife Refuge near the Moose Research Center. He was an average young male lynx that weighed 19 pounds, and like other lynx we had captured, we attached a small radio collar before releasing him in order to monitor his movements, home range, habitat use, and survival.

Nearly a month later we found #113 about 20 miles away, along the coast of Cook Inlet at Point Possession near the very northern tip of the Kenai Peninsula. He could go no further north or west because of the large expanse of water. From there he turned back to the south and returned to the area where he was captured—possibly his area of birth—that encompassed the entire Swanson River Canoe System. His movements traversed back and forth across this area until May 1997 when he departed again in the opposite direction, to the southeast, and crossed the Kenai River above from Skilak Lake sometime in mid-June. By early July his travels had taken him deep into the Kenai Mountains and high up into a spruce-alder valley southeast of Upper Russian Lake, near Goat Lake. We found him there near yet another barrier to his wandering movements, but this time it was glaciers and ice—the Harding Icefield. By early August he had turned back again to the west, left the mountains behind and was traveling southwest across the Kenai Benchlands north of Tustumena Lake. He most

likely skirted the west end of Tustumena Lake, crossed the Kasilof River, and by early September was east of Homer on the north side of Kachemak Bay overlooking yet another barrier of water to his movements further to the south. He turned back north.

In late September 1997, nearly a year after his capture and after wandering the length and breadth of the Kenai Peninsula and encountering the Cook Inlet and Harding Icefield, #113 apparently had found a place to his satisfaction on the southwestern forested slopes of the Caribou Hills. He settled there and established himself as a stay-at-home resident, his wandering days apparently over. He remained there for over a year until he was taken in a coyote snare by a trapper in December of 1998. A microscopic section of the cementum layers in one of his canine teeth confirmed that he was three years old at the time of his death, and therefore just over a year old when we captured him back in October of 1996.

The movements of this particular lynx are typical of dispersing lynx we have monitored and demonstrate that it is very difficult for lynx to find their way off the Kenai Peninsula, and probably even more difficult for mainland Alaska lynx to find their way onto the Kenai Peninsula. We have monitored the movements of many dispersing lynx on the western Kenai Peninsula and have found similar movement patterns. Despite a dispersing lynx's ability to travel, it is very difficult to find its way off the peninsula. Of well over 100 lynx captured and monitored on the refuge over more than 15 years, we have only one documented record, years ago, of a tagged lynx successfully dispersing off the Kenai. This was also a male lynx that was eventually captured near Chitna, over 200 straight-distance miles from his last known Kenai Peninsula location. Male lynx are apt to disperse more frequently and to greater distances than females. And of well over 100 lynx radio-collared in mainland Alaska and in northwestern Canada, in the 1980's and 1990's, none ever made it to the Kenai Peninsula.

This knowledge of lynx movements and the movements of other mammals such as wolves and brown bears on the Kenai Peninsula is of significance because it relates to a tenet of animal ecology known as "is-

land biogeography." Basically, island biogeography states that animal populations on islands, or in isolated blocks of habitat, are more at risk and susceptible to extinction than populations that are surrounded by other similar populations. The smaller the island and the more isolated from nearby populations, the greater the risk. The scientific literature is replete with examples of populations declining or going extinct on islands or within isolated or small fragments of once-continuous habitat. Specific examples also include the Kenai Peninsula.

Caribou, another great wanderer, were once native to the Kenai Peninsula but were extirpated by man in the early 1900's. Caribou had to be re-introduced to the Kenai in the mid-1960's and 1980's. Had they not been re-introduced, we would probably still be waiting, after nearly 100 years, for caribou from mainland Alaska to find and "naturally colonize" the peninsula again.

Evidence suggests that it took mainland Alaska wolves about 50 years to find and colonize the Kenai Peninsula after they were also extirpated from the peninsula in the early 1900's. As wildlife habitat shrinks on the peninsula and more human-created barriers to wildlife movements to and from the peninsula are erected in their paths, the more difficult it is for mainland Alaska and Kenai Peninsula wildlife populations to intermix, share genetic traits, and maintain themselves through emigration and immigration. The known history of Kenai Peninsula wildlife populations, as well as radio-collar studies of dispersing wildlife on the peninsula, and ecological information on the risks associated with isolated populations in general, all clearly indicate that certain wildlife populations on the Kenai Peninsula need to be managed more carefully than mainland Alaska populations.

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